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REMARKS

Claims 1, 7, 18, 22, 26, 30, 34, 35 and 37 have been amended. Claims 1-38 are pending in this application.

Rejection Under 35 U.S.C. § 112

The Examiner has rejected claims 1-30 and 34 under 35 U.S.C. §112, first paragraph, as based on a disclosure which is not enabling. Applicants respectfully traverse this rejection in light of the current amendments and the following remarks.

The Examiner stated that claims 1, 18, 22, 26, 30 and 34 as well as 2-17, 19-21, 23-25 and 27-29 did not state a training step or portion of an apparatus for training the view modeler. The amendments to claims 1, 18, 22, 26, 30 and 34 denote that the applying step is performed with reference to a model. Training a camera in a setup phase assists in the definition of models. However, once the data is available, training is not required for performing the methods embodied in claims 1-30 and 34. As such, claims 1-30 and 34, as amended, are enabled by the specification because each incorporates the concept of using trained data or a setup phase.

Rejection Under 35 U.S.C. § 102(b)

The Examiner has further rejected claims 1-6, 18, 22, 26 and 34-36 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,491,517 to *Kreitman et al.* Applicants respectfully traverse this rejection in light of the current amendments and the following remarks.

Independent claim 1 incorporates features not disclosed in the prior art cited by the Examiner. For example, Kreitman et al. does not include "applying a transform function to visual content to be inserted into an image sequence...wherein the applying step...is performed without reference to any real-time image content contained in the image sequence," as required by amended claim 1.

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The Examiner states that Kreitman et al. teaches the applying step performed without reference to any content of the image sequence. However, Kreitman et al. requires "feature identification unit 60" and "perspective identification unit 62" as shown in FIGS. 5-8 and as discussed generally in col. 7, line 30 to col. 8, line 42. In particular, Kreitman et al. states the following

- "The system 14 typically comprises a feature identification unit 60 (FIG. 5) for identifying which features of the court 32 are present in each input video frame..." Kreitman et al., col. 7, 11. 30-32.
- "From the background mask 70, unit 60 (FIG. 5) extracts the features of the playing field. For tennis courts, the features of interest are the lines 38. The perspective identification unit 62 compares the extracted features with those of the model 50 and produces therefrom a transformation matrix [64]."

 Kreitman et al., col. 7, II. 58-63.

In other words, Kreitman et al. teaches that content contained in the image sequence, such as features of the court 32, is identified, extracted, compared to the model, and used to produce a transformation matrix. See FIG. 5. As such, applying the transform function is performed with reference to content contained in the image sequence in Kreitman et al. because the transformation matrix is defined based on the image sequence content. This is in contrast with Applicants' invention in which the step of applying the transform function "is performed without reference to any content contained in the image sequence." For at least this reason, claim 1, as amended, is allowable over the prior art cited by the Examiner.

Similarly, amended claim 18 states that the step of applying the transform function "is performed without reference to any real-time content contained in the image sequence;" amended claims 22 and 26 state that the step of applying the transform function "is performed without reference to any content contained in the image sequence;" and amended claim 34 states that "the applying step is performed without reference to any content contained in the first image and the second image." For substantially the same reasons as set forth with respect to amended

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claim 1, amended claims 18, 22, 26 and 34 are likewise allowable over the prior art cited by the Examiner.

As claims 2-6 depend from and incorporate all of the limitations of allowable independent claim 1, claims 2-6 are likewise allowable over the prior art cited by the Examiner.

The Examiner has further rejected claim 30 under 35 U.S.C. §103(a) as being obvious over *Kreitman et al.* in view of U.S. Patent No. 6,750,919 to *Rosser*. Applicants respectfully traverse this rejection in light of the current amendments and the following remarks.

Independent claim 30 incorporates features not disclosed in the prior art cited by the Examiner. For example, neither Kreitman et al. nor Rosser, whether considered alone or in combination, includes "applying a transform function to dynamically changing visual content...wherein the applying step...is performed without reference to any real-time image content contained in the image sequence," as required by claim 30. For substantially the same reasons as set forth with respect to claim 1, claim 30 is likewise allowable over Kreitman et al.

Rosser does not overcome the deficiencies of Kreitman et al. Rosser states, "The live video insertion system unit 16 performs the functions of recognition using the recognition unit 18." Rosser, col. 4, ll. 1-2. In other words, Rosser merely teaches or suggests that an applying step is performed with reference to real-time image content contained in the image sequence. In contrast, claim 30 requires that the applying step be performed without reference to any real-time image content contained in the image sequence. For at least this reason, claim 30 is allowable over the prior art cited by the Examiner.

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Examiner's Ouestion Regarding Moving Objects

The specification notes in paragraph [0039] that in an embodiment the present invention may be used "to place dynamically moving highlights on [moving objects]." The specification further notes, "Analysis of the movement of these [moving objects] could be done, accentuated by highlights on the [moving objects] in order to facilitate the analysis." An exemplary method of performing such an operation may include using a model relative position tracking system (utilizing transmitters installed within the moving objects) or other devices to detect the location of the moving objects relative to the model. Accordingly, the position of the moving objects is determined without reference to any real-time image content contained in the image sequence, but instead by sensor data.

A plurality of other embodiments are envisioned within the scope of the present invention. The above embodiment is merely described at the request of the Examiner to provide further explanation of one such embodiment.

All of the stated grounds of rejection have been properly traversed and/or accommodated. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. There being no other rejections, Applicants respectfully request that the current application be allowed and passed to issue.

If the Examiner believes for any reason that personal communication will expedite prosecution of this application, I invite the Examiner to telephone me directly.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for this Amendment and Response, or credit any overpayment, to deposit account no. 50-0436.

Respectfully submitted, PEPPER HAMILTON LLP

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CERTIFICATE OF FACSIMILE UNDER 37 C.F.R. §1.6 & §1.8

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Applicant:

Dengler, et al.

Examiner:

Eric V. Woods

Serial No.:

10/613,273

Group Art Unit:

2672

Filed:

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Docket No.:

103666.00101

Title:

System and Method for Inserting Content into an Image Sequence

I hereby certify that this <u>Amendment and Response to Office Action Under 37 C.F.R. §1.111</u> is being sent via facsimile to fax number <u>571-273-8300</u> under 37 C.F.R. §1.6 & §1.8 on <u>October 24, 2005.</u>

Brenda C. Scheuering

(Typed/printed name of person mailing paper or fee)

(Signature of person mailing paper of fee